## The Diagnosis of Carcinoma and Benign Cysts of the Breast

To the Editor: Dr. de Groot's paper, "Diagnosis of Carcinoma and Benign Cysts of the Breast—The Value of Needle Aspiration" [West J Med 122:99-103, Feb 1975] makes a valid case for a simple and useful procedure. However, no paper on diagnosis of carcinoma of the breast can ignore the most important contribution to the diagnosis of breast cancer in our medical generation. The use of x-ray examination of the breast, and perhaps more particularly the refinement of xeroradiography, has eliminated a good deal of the guess work which Dr. de Groot appears to accept in his paper.

He states: "If a carcinoma is so small that it escapes detection by the examining finger even when attention is directed to the specific area, a question that comes up is how one could have detected so small a lesion elsewhere in the same or the other breast, or at another time." These occult or nonpalpable cancers are the special province of mammography. Frankl<sup>1</sup> found 105 occult cancers out of 13,912 examinations. This represented about one-third of all cancers detected by xeroradiography. These occult cases were the more favorable ones by a vast margin. Occult cancers were associated with only 28 percent positive nodes as compared with dominant mass cases which were associated with 51 percent positive nodes. The number of negative biopsies for carcinoma (false positives) was 40 percent for radiologic studies as compared with 76 percent of biopsies based on physical findings. J. N. Wolfe<sup>2</sup> reported a similar incidence of occult carcinoma found on xeroradiographic examination. He found 30 percent occult carcinomas out of 462 cases of carcinoma. Thus the "question" of detecting the small or nonpalpable lesion has a very clear answer in the use of this valuable modality.

Dr. de Groot also suggests that in evaluating the borderline between lumpiness and discrete masses, the choice rests between repeated biopsies and bilateral mastectomy. This is an area in which mammography is of assured value. He also states that the modern sophisticated patient is used to having everything that is removed from her body sent to a pathologist. This same modern patient is aware of the value of mammography, and will probably request the procedure if her physician should fail to do so.

A tabulation of the clinical indications for mam-

mography will encompass virtually all of the problem cases enumerated by Dr. de Groot. Such indications include fibrocystic disease and the diffusely lumpy breast, prior biopsy—especially with associated thickening, dominant mass—with particular reference to an unsuspected additional lesion in either breast, nipple discharge or breasts so large as to make physical examination unreliable. Among increased risk patients are those with prior mastectomy, family history of breast cancer, and the nulliparous or late parity patient. In summary, mammographic examination deserves a major role in diagnostic evaluation of the breast.

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## REFERENCES

1. Frankl G: Xeroradiographic detection of occult carcinoma of the breast. Supplement to exhibit presented at the 60th annual congress of the American College of Surgeons, Miami, Oct 21, 1974

2. Wolfe JN: Analysis of 462 breast carcinomas. Am J Roent 121:846-853, Aug 1974

## The Author Replies

In the Evaluation of a patient who presents with a suspected cyst, mammography does play a role, as I did indicate in my paper. I am, therefore, somewhat surprised to hear Doctor Engle state that I "ignore" this modality. If I did not discuss mammography in detail, it was probably because the question was not whether clinical evaluation could replace mammography, but rather whether, when dealing with cysts, excisional biopsy can be replaced by noninvasive methods of diagnosis (of which mammography, next to palpation, is one) followed by needle aspiration.

There are, however, a number of practical questions which mammography cannot answer, in spite of the understandable but nonetheless only seemingly logical conclusion that, if mammography can detect occult cancers, it should be able to give even clearer answers about masses at a palpable stage. This is partly because of the nature of the problems involved, which mammography simply cannot be expected to solve, and partly because of the frequency with which these problems present themselves.

As an introduction, and because there is some overlap with questions which arise when dealing with cysts, I would like to point out that even the routine evaluation of "normal" breasts still mostly deals with palpable masses, in spite of the indeed amazing ability of mammography to discover malignancies which the human finger cannot even